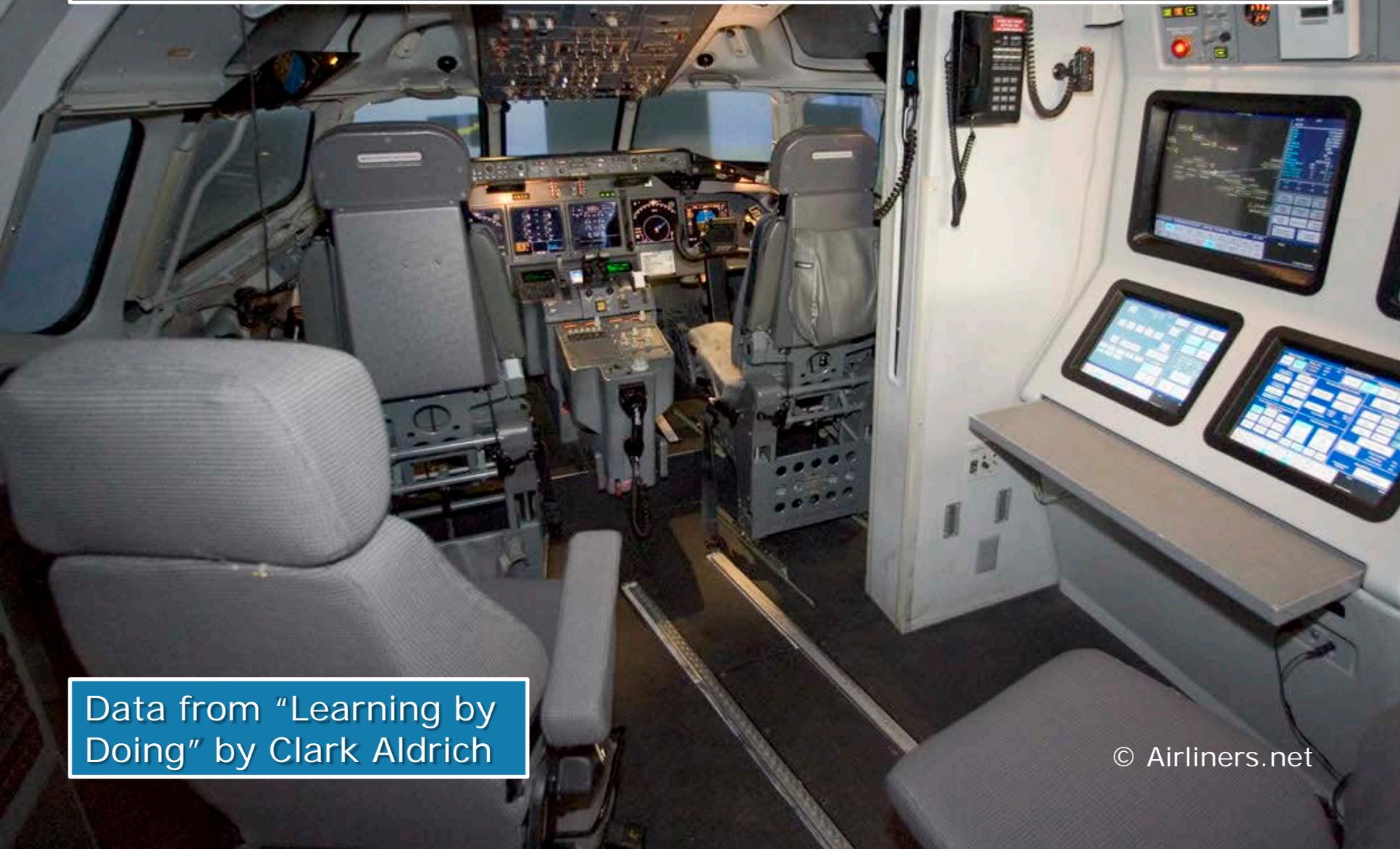


Facilitation and Mentoring Strategies During a Simulation

Andy Wood and Steven Martinaitis



Let's Start with a Short Quiz on Military and Commercial Pilot Simulations



Data from "Learning by Doing" by Clark Aldrich

© Airliners.net

How Long Does It Take before a Novice Pilot Learns to Fly a Particular Military Aircraft

1. 6 months
2. 1 year
3. 18 months
4. 2 years
5. 3 years

Pilot Development Takes a Long Time

3 years from here



To here

How Many Simulations Does the Average Military Pilot Complete during This Time?

1. 2-3
2. 4-5
3. 5-7
4. 8-10

Novice Pilots: ~ 8-10 Simulator “Experiences”



How Often Do Most Commercial Pilots Complete Simulator Training?

1. Every 6 months
2. Every 9 months
3. Every 12 months
4. Every 18 months

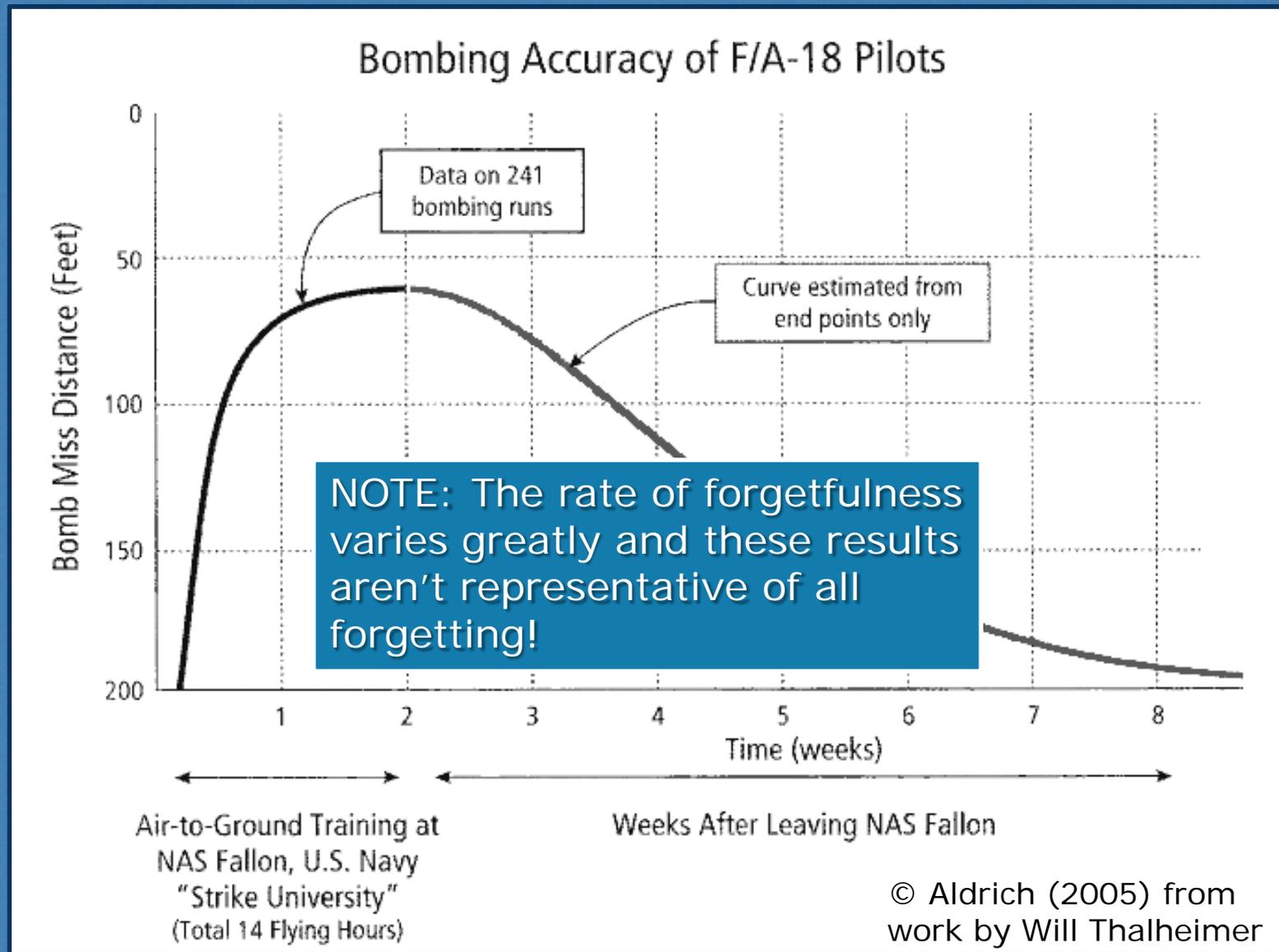
Commercial Pilots: Simulator Training Every 9 Months & When They Change Aircraft



Improved Accuracy After Training Was Lost by Bomber Pilots if They Didn't Apply Those Skills within:

1. 20 days
2. 45 days
3. 90 days
4. 180 days

Pilots Lost Unused Skills around 45 Days



Here Are Some Topics for Discussion

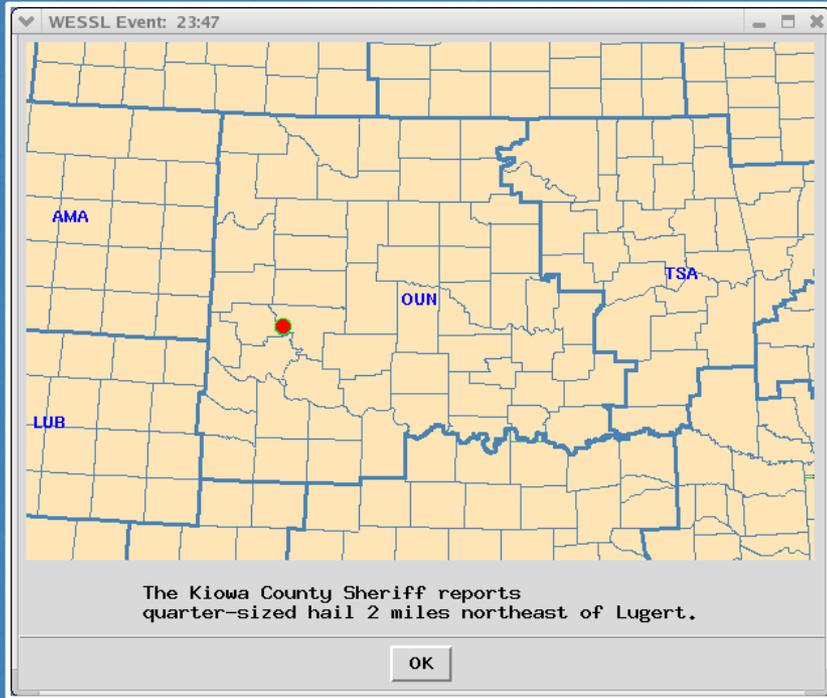
- How much training does a novice get before issuing warnings?
- Do novices get more simulation time?
- Do forecasters really need a simulation facilitator?
- When should forecasters complete simulations?



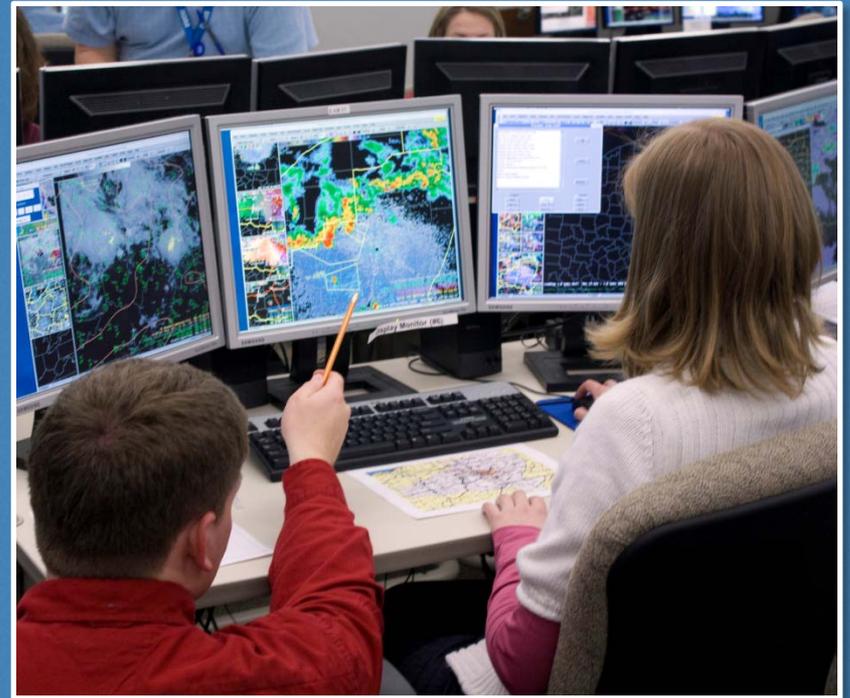
Facilitating Simulations Is Essentially Coaching & Mentoring Your Staff



Spend Your Facilitation Time Wisely



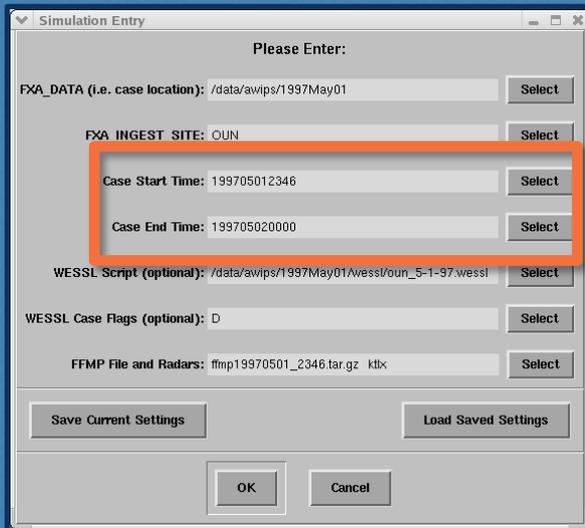
Automation: Repetitive elements



Facilitators: Customized elements

Different People + Different Needs = Unique Simulations

A single event can provide diverse challenges by varying:



Simulation Entry

Please Enter:

FXA_DATA (i.e. case location): /data/awips/1997May01

FXA INGEST SITE: OUN

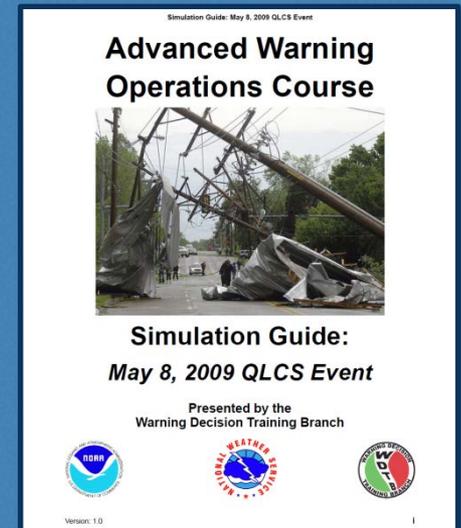
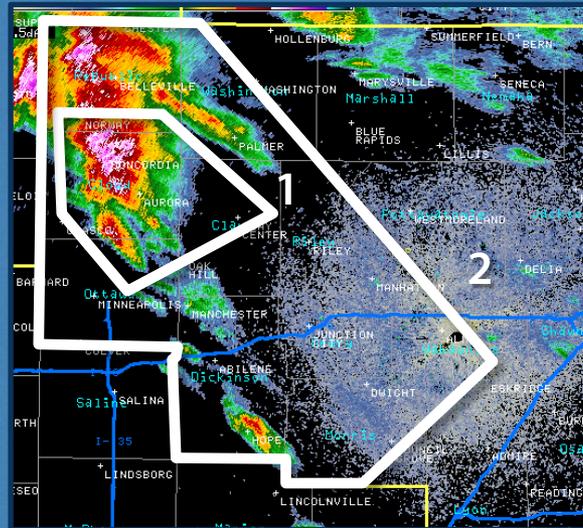
Case Start Time: 199705012346

Case End Time: 199705020000

WESSL Script (optional): /data/awips/1997May01/wessl/oun_5-1-97.wessl

WESSL Case Flags (optional): D

FFMP File and Radars: ftmp19970501_2346.tar.gz ktk



Start/stop times

Warning sectors

Objectives

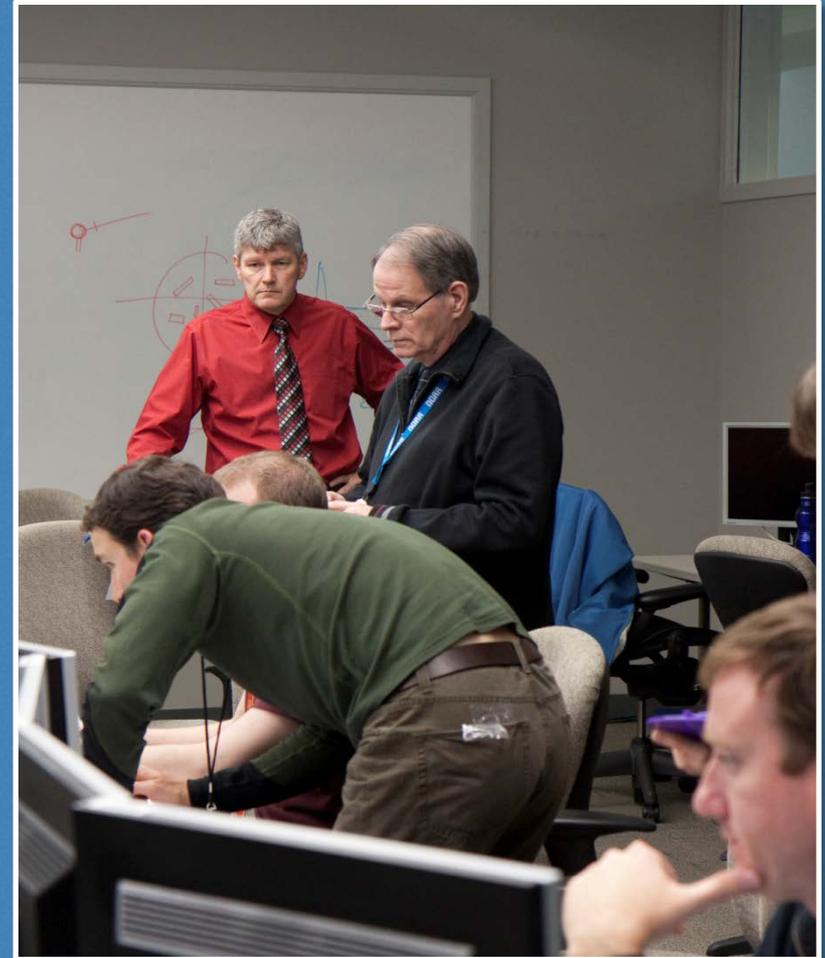
Ideas for Customized Interactions by Simulation Type

- Intervene when necessary
 - Real-time
 - Virtual reality
- Ask same question different ways
 - Interval-based
 - Situation awareness
- Time procedural tasks
 - Real-time

Simple Guideline on Facilitator Involvement

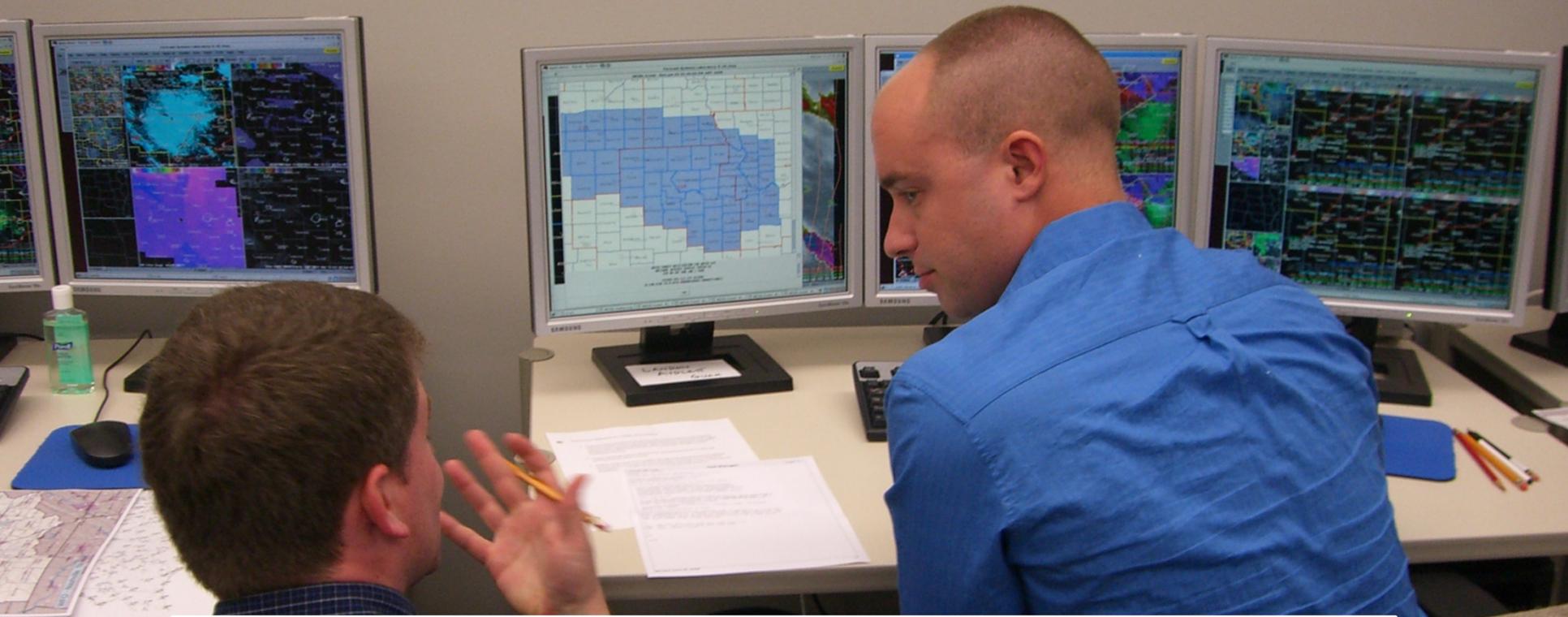


If they're lost, get more involved



If you're involved too much, you're in the way

Give Forecasters Feedback as Needed



- Be specific
- Don't overwhelm with details
- Identify when they apply training content
- Show empathy

Identify Frustration Moments

- No pain, no gain!
- Encourage forecasters to try new techniques
- Forecaster may challenge the simulation

Help Forecasters Resolve Frustration Moments during the Simulation

- Don't let forecasters leave frustrated
- Frustration from sim design or learning
- Balance objectives with student comments

Time to take the strategies and concepts described here...



And apply the materials we have to the facilitation process.

Knowing the Simulation Material

Understand What Is Provided

- Performance and learning objectives
- Case and background information
- Relevant vs. supplementary

Simulation Guide: May 8, 2009 QLCS Event

Advanced Warning Operations Course



Simulation Guide:
May 8, 2009 QLCS Event

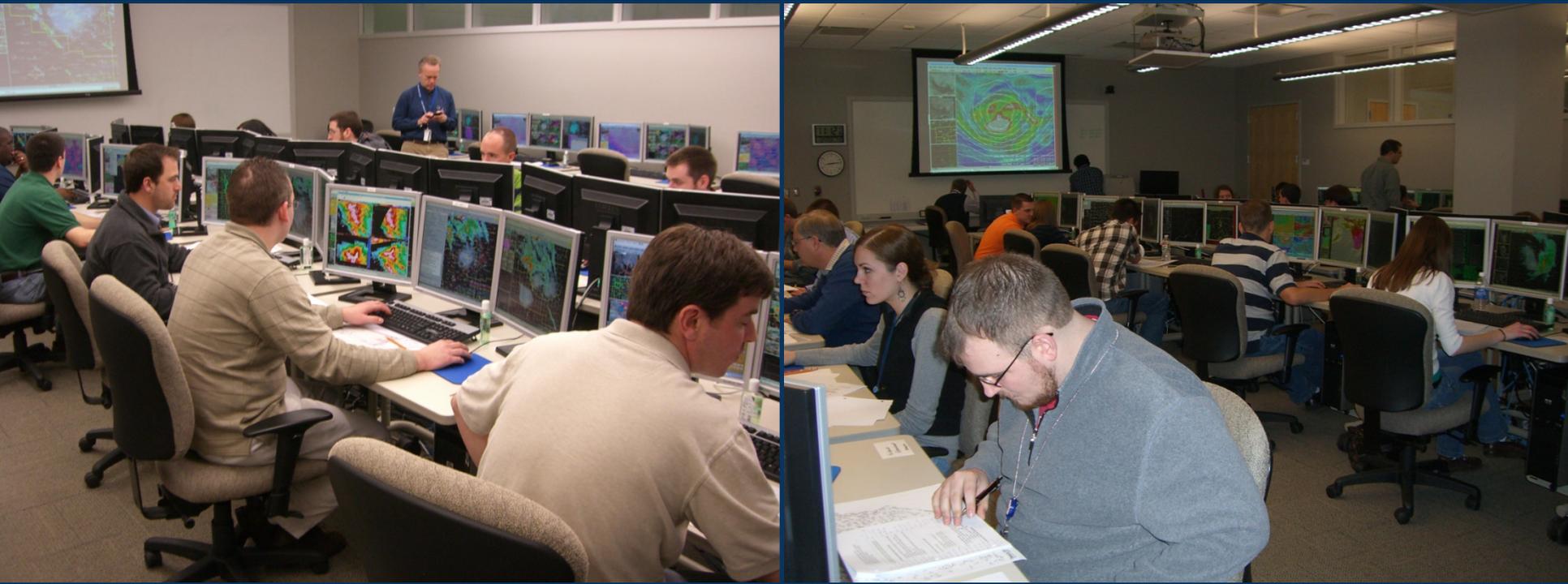
Presented by the
Warning Decision Training Branch



Version: 1.0

i

Performance Objectives



- Given as *suggestions*... Modify or create your own to tailor to needs of the office or individual
- Everyone should have clear understanding of objectives

Various Objective Topics

The background image shows a control room or operations center. It features several rows of desks with multiple computer monitors. Two individuals are visible, seated at their workstations, focused on the screens. The room is dimly lit, with light coming from the monitors and overhead fixtures. The overall atmosphere is professional and technical.

Environmental analysis

Radar interrogation

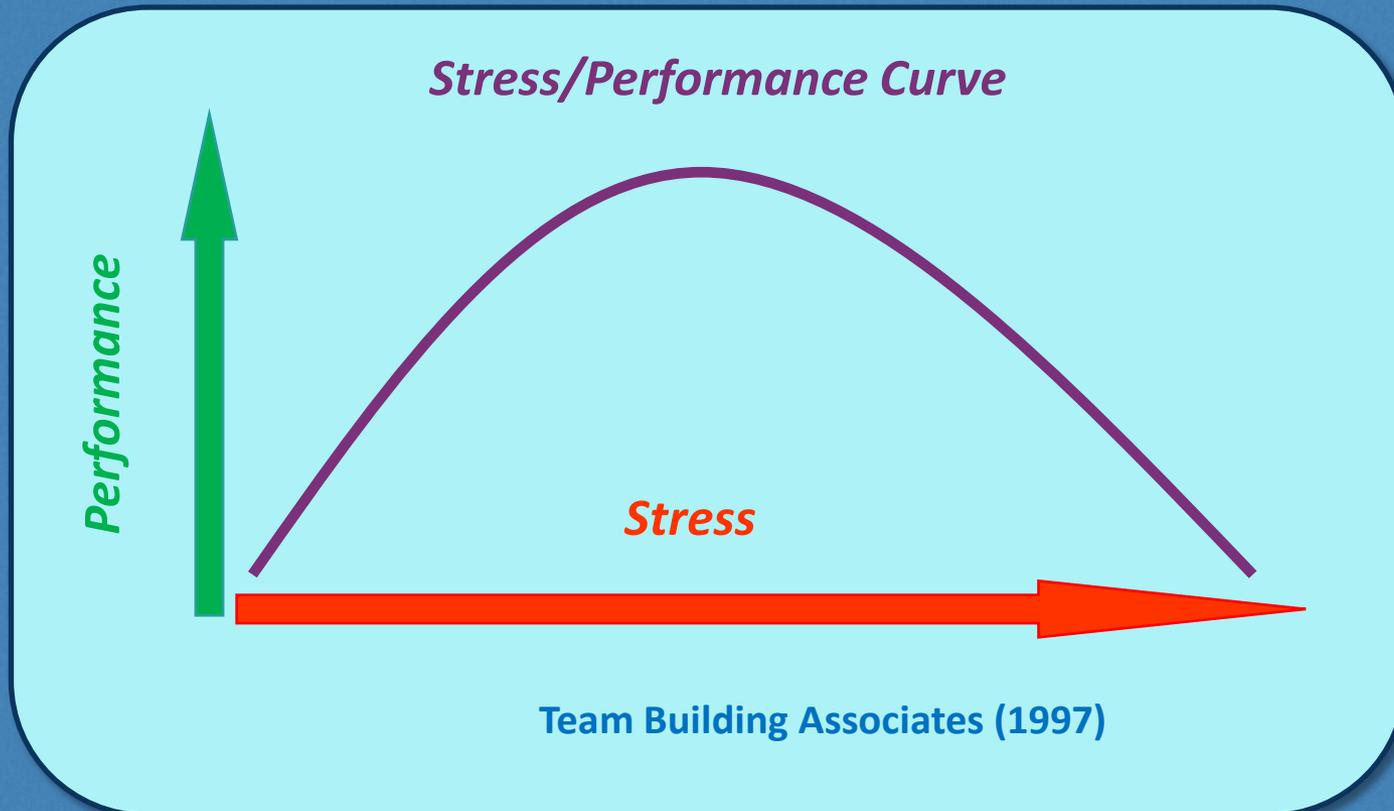
Warning decision making and issuance

Human factors and communication

Performance objectives related to operations

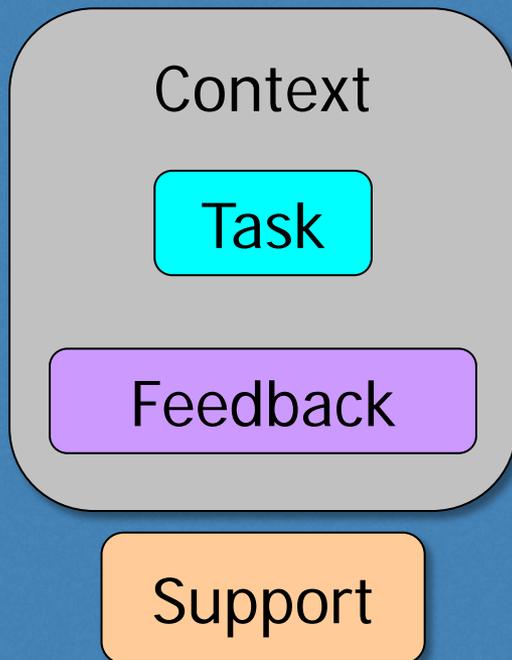
Individual Workload Levels during a Simulation

- Optimal situational awareness and workload balance



Applying the Simulation Styles

- Real-time
- Interval-based
- Situational awareness
- Virtual reality



Workload Application

OPEN

COMBINATION

STRUCTURED

Simulation Guides for the Students

- All WDTB simulations have a facilitator guide... only some have a student guide
- Generally for simulations with a Job Sheet
- Provides the student with specific material to enhance learning experience



Simulation Example with a Student Guide

Simulation Guide: July 20-21, 2010 Event

FLASH FLOOD WARNING BEST PRACTICES



SIMULATION GUIDE: JULY 20-21, 2010 EVENT

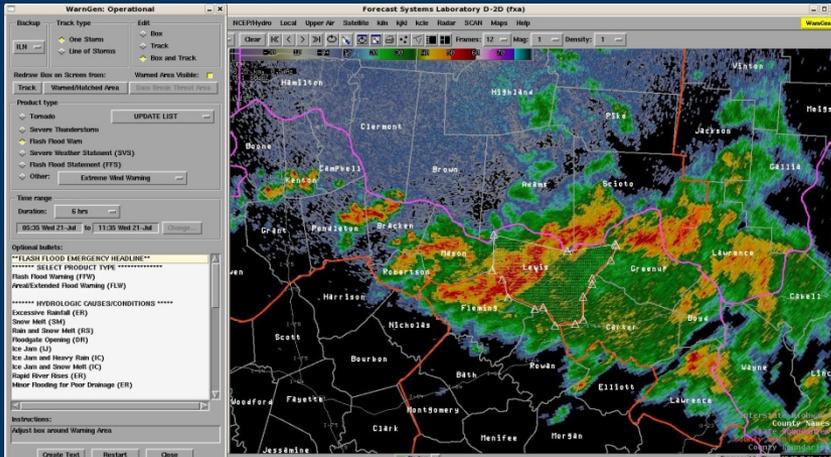
Presented by:
The Warning Decision Training Branch



Student Version

Version: 1.0

- Real-time simulation with Job-Sheet style approach
- Timeline to allow opportunity to complete given tasks



Questions or Comments?

Andrew.C.Wood@noaa.gov
Steven.Martinaitis@noaa.gov

